



MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO  
**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Complete if Known**

Application Number	10/664,421
Filing Date	09/16/2003
First Named Inventor	Ryan Bremer
Group Art Unit	1656
Examiner Name	Nashed
Attorney Docket Number	039363-0703

Sheet 1 of 4

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
NN	A1	20010008765		Shinoki et al.	07/19/2001	
	A2	20010012537		Anderson et al.	08/09/2001	
	A3	20010014448		Chappa et al.	08/16/2001	
	A4	20010014449		Nerenberg et al.	08/16/2001	
	A5	20010016322		Caren et al.	08/23/2001	
	A6	20010018642		Balaban et al.	08/30/2001	
	A7	20010019827		Dawson et al.	09/06/2001	
	A8	6100254		Budde et al.	08/08/2000	
	A9	6197495		Qui et al.	03/06/2001	

**UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Application Document		Name of Patentee or Applicant of Cited Document	Filing Date of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Serial Number	Kind Code <sup>2</sup> (if known)			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
NN	A10	WO	99/26966		The Regents of the University of California	06-03-1999		
NN	A11	WO	01/58951		Stichting Voor de Technische Wetenschappen	08-16-2001		
NN	A12	WO	02/24722		Prochon Biotech Ltd.	03-28-2002		

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>

Examiner Signature

/Nashaat Nashed/ (01/10/2007)

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	10/664,421
		Filing Date	09/16/2003
		First Named Inventor	Ryan Bremer
		Group Art Unit	1656
		Examiner Name	Nashed
Sheet	2	of	4
		Attorney Docket Number	039363-0703

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
NN	A13	BOEHM, <i>et al.</i> , "Novel Inhibitors of DNA Gyrase: 3D Structure Based Biased Needle Screening, Hit Validation by Biophysical Methods, and 3D Guided Optimization. A Promising Alternative to Random Screening," <i>J. Med. Chem.</i> 43:2664-2674 (2000)	
	A14	BOHACEK, <i>et al.</i> , "Multiple Highly Diverse Structures Complementary to Enzyme Binding Sites: Results of Extensive Application of a <i>de Novo</i> Design Method Incorporating Combinatorial Growth," <i>J. Am. Chem. Soc.</i> 116:5560-5571 (1994)	
	A15	CHONG, <i>et al.</i> , "Molecular dynamics and free-energy calculations applied to affinity maturation in antibody 48G7," <i>PNAS</i> 96:14330-14335 (1999)	
	A16	CORNELL, <i>et al.</i> , "A Second Generation Force Field for the Simulation of Proteins, Nucleic Acids, and Organic Molecules," <i>J. Am. Chem. Soc.</i> 117:5179-5197 (1995)	
	A17	DONINI and KOLLMAN, "Calculation and Prediction of Binding Free Energies for the Matrix Metalloproteinases," <i>J. Med. Chem.</i> 43:4180-4188 (2000)	
	A18	DOWNS and WILLETT, "Similarity Searching and Clustering of Chemical-Structure Databases Using Molecular Property Data," <i>J. Chem. Inf. Comput. Sci.</i> 34:1094-1102 (1994)	
	A19	ELCOCK, Realistic modeling of the denatured states of proteins allows accurate calculations of the pH dependence of protein stability. <i>J. Mol. Biol.</i> , 294:1051-1062, (1999).	
	A20	FELDER, "The Challenge of Preparing and Testing Combinatorial Compound Libraries in the Fast Lane, at the Front End of Drug Development," <i>Chimia</i> 48:531-541 (1994)	
	A21	GILLILAND and LADNER, Crystallization of biological macromolecules for X-ray diffraction studies. <i>Current Opinion in Structural Biology</i> , 6:595-603, (1996).	
	A22	JARVIS and PATRICK, "Clustering Using a Similarity Measure Based on Shared Near Neighbors," <i>IEEE Transactions on Computers</i> 11:1025-1034 (1973)	
	A23	KE and DOUDNA, Crystallization of RNA and RNA-protein complexes. <i>Methods</i> , 34:408-414, (2004).	
	A24	MASSOVA and KOLLMAN, "Computational Alanine Scanning to Probe Protein - Protein Interactions: A Novel Approach to Evaluate Binding Free Energies," <i>Journ. of Amer. Chem. Soc.</i> 121(36):8133-8143 (1999)	

Examiner Signature	/Nashaat Nashed/ (01/10/2007)	Date Considered	
--------------------	-------------------------------	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	10/664,421
		Filing Date	09/16/2003
		First Named Inventor	Ryan Bremer
		Group Art Unit	1656
		Examiner Name	Nashed
Sheet	3	of	4
		Attorney Docket Number	039363-0703

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
NN	A25	MCGOVERN, <i>et al.</i> , "A Common Mechanism Underlying Promiscuous Inhibitors from Virtual and High-Throughput Screening," <i>J. Med. Chem.</i> 45:1712-1722 (2002)	
NN	A26	OBRECHT, <i>et al.</i> , "Solid-Supported Combinatorial and Parallel Synthesis of Small-Molecular-Weight Compound Libraries," <i>Linker Mol. &amp; Cleav. Strat.</i> P. 85.	
NN	A27	OWEN, <i>et al.</i> , "Two Structures of the catalytic domain of phosphorylase kinase: an active protein kinase complexed with substrate analogue and product," <i>Curr. Biol. Ltd.</i> 3:467-482 (1995)	
NN	A28	PEARLMAN and CHARIFSON, "Are-Free Energy Calculations Useful in Practice? A Comparison with Rapid Scoring Functions for the p38 MAP Kinase Protein System," <i>J. Med. Chem.</i> 44:3417-3423 (2001)	
NN	A29	RIPKA, <i>et al.</i> , "Aspartic Protease Inhibitors Designed from Computer-Generated Templates Bind as Predicted," <i>Org. Lett.</i> 15:2309-2312 (2001)	
NN	A30	WIENCEK, New strategies for protein crystallization growth. <i>Ann.Rev.Biomed.Eng.</i> , 1:505-534, (1999).	
NN	A31	WILLETT, "Chemical Similarity Searching," <i>J. Chem. Inf. Comput. Sci.</i> 38:983-996 (1998)	

Examiner Signature	/Nashaat Nashed/ (01/10/2007)	Date Considered	
--------------------	-------------------------------	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/664,421
		Filing Date	09/16/2003
		First Named Inventor	Ryan Bremer
		Group Art Unit	1656
		Examiner Name	Nashed
Sheet	4	of	4
		Attorney Docket Number	039363-0703

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
NN	A32	YANG et al., Peptide analogs from E-cadherin with different calcium-binding affinities. J. Peptide Research, 55:203-215, (2000).	

Examiner Signature	/Nashaat Nashed/ (01/10/2007)	Date Considered	
--------------------	-------------------------------	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

Use as many sheets as necessary)

1

of

1

## Complete if Known

Application Number	10/664,421
Filing Date	09/16/2003
First Named Inventor	Ryan Bremer
Art Unit	1656
Examiner Name	Nashed
Attorney Docket Number	039363-0703

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
UNPUBLISHED U.S. PATENT APPLICATION DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Application Document	Filing Date of Cited Document MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Serial Number-Kind Code <sup>2</sup> (if known)			

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
NN	A2	BOS et al., The 500 Dalton rule for the skin penetration of chemical compounds and drugs. Experimental Dermatology, 9:165-169, 2000.	
NN	A3	KEISS et al., Beta-Galactosidase decreases the binding affinity of the insulin-like-growth-factor-ii/mannose-6-phosphate receptor for the insulin-like-growth-factor II. European Journal of Biochemistry, 190:71-77, 1990	
NN	A4	MARYANOFF et al., Structure activity studies on anticonvulsant sugar sulfamates related to topiramate. Enhanced potency with cyclic sulfate derivatives. Journal of Medicinal Chemistry, 41:1315-1343, 1998.	
NN	A5	PHAN et al., Extensively methylated myosin subfragment-1; Examination of local structure, interactions with nucleotides and actin, and ligand-induced conformational changes. Biochemistry, 33:11286-11295, 1994.	

Examiner Signature	/Nashaat Nashed/ (01/10/2007)	Date Considered	
--------------------	-------------------------------	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.